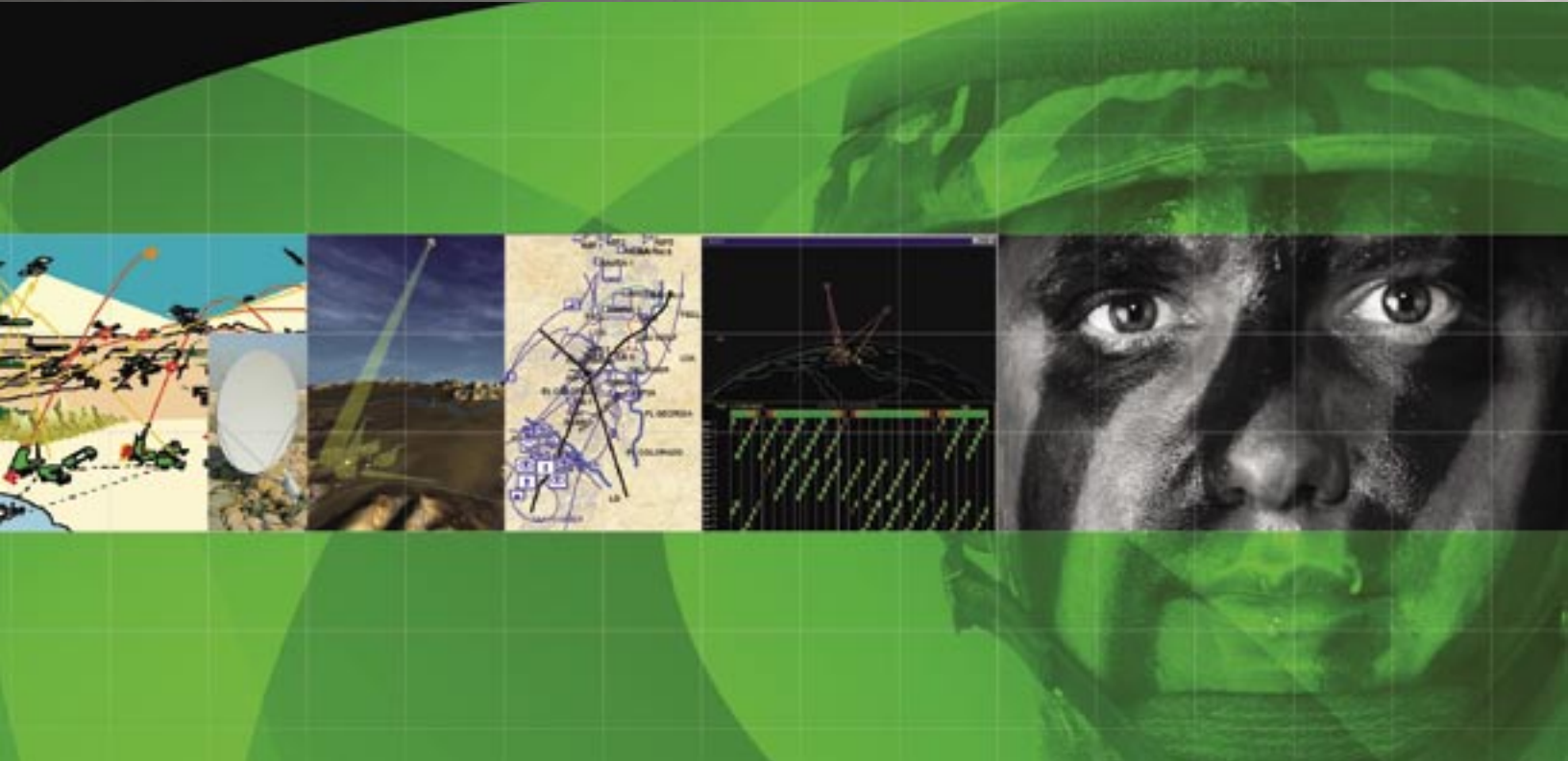




# Studies and Analysis Division



## Summary

- Technical personnel with operational knowledge
- Analysis experience with force-on-force simulations
- Experimental and analytic design proficiency
- In-depth statistical data analysis skills

### **Determining the military utility of space, missile defense, and information operations to the current and future warfighter through studies, analysis, and wargaming.**

The Studies and Analysis (S&A) Division is focused on determining the utility of space, missile defense, and information operations systems, as well as the associated Concepts of Operation (CONOPS) for the future warfighter. S&A evaluates the utility of systems and CONOPS through wargaming events and experiments; analyses of alternative capabilities in support of materiel development activities and requirements determination; assessments of advanced concepts; and analyses that define space, missile defense, and information operations architectures for the future warfighter. S&A has developed and sustained core competencies required to execute these functions. The core competencies include operational experience, force-on-force expertise, statistical analysis skills, and design of experiments proficiency. These competencies combined with an extensive in-house suite of models and simulations have enabled S&A to conduct studies and analyses that have an impact on major decisions made at the U.S. Army Space and Missile Defense Command (SMDC), Army, Air Force, Joint Staff, U.S. Strategic Command (STRATCOM), and Office of the Secretary of Defense level.

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## Core Competencies

**Operational Analysis**—S&A analytically supports SMDC, the Army, and the Department of Defense in all operational aspects of space, missile defense, and information operations support to the Future Force. The division is able to conduct analysis for the full spectrum of warfighting based on its staff of professional operational research analysts who have extensive experience in space, missile defense, information operations, and military combat operations. S&A has modified, as well as created, scenarios; developed measures of performance, measures of effectiveness and other critical metrics; and has directed studies involving multiple organizations. The division also collaborates with U.S. Army Training and Doctrine Command (TRADOC) to develop space and missile defense scenarios and maintain force-on-force simulation models.

**Experimental and Analytic Design**—S&A designs experiments and analyses from planning and execution to synthesis and reporting. S&A has broad experience in the design of experiments to ensure that the collection of data supports all essential elements of analyses. The division has developed the methodology for experiments and analyses for SMDC and the Army. It has also assisted other Army organizations, Air Force analytic agencies, STRATCOM, and the DoD staff in designing experiments and analyses.

**Statistical Data Analysis**—S&A has the internal capability to perform a complete range of statistical data analysis. The S&A team consists of analysts who have a broad background in mathematical and simulation modeling – both operational and cost based – utilizing the latest methodologies and tools.

**Force-on-Force Simulation**—S&A maintains a full in-house suite of force-on-force simulations. The force-on-force models include engineering, tactical, theater, and operational level simulations. S&A maintains a staff

fully dedicated to maintenance, sustainment, and operation of these tools, which enables the team to perform quick turnaround analyses as well as extensive long term studies.

## Past and Ongoing Products

- Joint Forces Command J9 Swarming Entities Study (Study Lead)
- Decision Support Center Space Based Radar Study (Army Study Lead)
- Army G8 Army Equity in Space – Intelligence, Surveillance, and Reconnaissance Study (Technical Study Director)
- Directed Energy (DE) Project Office, DE Study (Study Lead)
- TRADOC Unit of Action Concept Experimentation Program (SMDC Analysis Lead)
- Air Force Ground Moving Target Indicator Analysis of Alternatives (Army Study Lead)
- Analytic Support to Regional Combatant Commands and Homeland Defense (Study Lead)
- National Security Space Office (NSSO) Responsive Space Operations Architecture Study (Army Analysis Lead)
- NSSO Protection for Space Mission Assurance (PSMA) Architecture Study (Army Analysis Lead)
- NSSO Integrated Intelligence, Surveillance, and Reconnaissance Study (Army Analysis Lead)
- Army Space Based Radar Analysis (Technical Study Director)
- Army Space Control Analysis (Technical Study Director)

## In-House Simulation Tools

- Satellite Tool Kit (STK)
- Janus
- Systems Effectiveness Analysis Simulation (SEAS)
- Extended Air Defense Simulation (EADSIM)
- Extended Air Defense Testbed (EADTB)
- Joint Conflict and Tactical Simulations (JCATS)
- Simulation of the Location and Attack of Mobile Enemy Missiles (SLAMEM)
- Commander's Analysis and Planning Simulation (CAPS)
- Vector in Commander (VIC)
- Operations Network (OPNET)

## *“Analyze the High Ground”*



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